

DATA SHEET

Type 6014

bürkert
FLUID CONTROL SYSTEMS







Plunger valve 3/2 way direct-acting

- Direct-acting, compact valve with diameter of up to DN 2.5
- Vibration-proof, bolted coil system
- Banjo threaded connection for direct mounting on pneumatic valves
- Service-friendly manual override
- Energy-saving impulse versions

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2513 Cable plug according to DIN EN 175301-803 connector shape A	▶
	Type 2511 Cable Plug Form A	▶
	Type 2518 Cable Plug DIN EN 175301-803 - Form A	▶
	Type 1087 Timer	▶

Type description

Valve 6014 is a direct-acting plunger valve. The stopper and plunger guide tube are welded together to enhance pressure resistance and leak-tightness. Various seal material combinations are available depending on the application. A Bürkert-specific flange design (SFB) enables space-saving arrangement of valves on a manifold. The coils are moulded with polyamide or with chemically resistant epoxy. Pulse coils are available for the reduction of electrical power consumption during operation. Optional manual actuation enables quick commissioning and easy maintenance. In combination with a plug in accordance with DIN EN 175301-803 Form A, the valves satisfy protection class IP65. Stainless steel valves satisfy NEMA 4X.

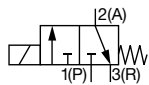
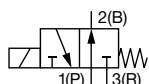
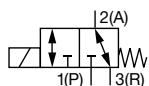
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1. General Technical Data

Product properties	
Dimensions	Detailed information can be found in chapter "5. Dimensions" on page 8.
Material	
Seal	FKM (EPDM on request)
Body	Brass or stainless steel, polyamide (sub-base)
Coil	Polyamide (Epoxy on request)
Nominal diameter	DN1.5...DN2.5
Thermal insulation class of solenoid	Polyamide class B (Epoxy class H on request)
Performance data	
Duty cycle / single valve assembly	100 % continuous rating Intermittent operation 60 % (30 min) or with 5 W coil (on request)
Circuit function	C, D and T (see "2. Circuit functions" on page 4)
Electrical data	
Operating voltage	24 V DC, 24 V/50 Hz, 230 V/50 Hz (other voltages on request)
Voltage tolerance	± 10 %
Medium data	
Medium temperature	- 10 °C... + 100 °C (PA coil) - 10 °C... + 120 °C (Epoxy coil)
Operating medium	Neutral gases and fluids (e.g. compressed air, town gas, natural gas, water, hydraulic oil, petrol). Suitable for technical vacuum.
Viscosity	Max. 21 mm ² /s
Process/Port connection & communication	
Electrical connection	DIN EN 175 301-803 Form A for cable plug Type 2518 (see "9.4. Ordering chart accessories" on page 24) ATEX/IECEX version with 3 m moulded cable
Port connection	G 1/8, G 1/4, sub-base (SFB)
Approvals and certificates	
Degree of protection	IP65 with cable plug, ATEX/IECEX junction box version and cable connection version NEMA 4x with cable plug 2518 or 2509 only for stainless steel versions (other versions on request)
Environment and installation	
Installation position	Any, preferably actuator upright
Ambient temperature	Max. +55 °C

2. Circuit functions

Circuit functions	Description
	Type: C, solenoid valve 3/2 way Direct-acting Normally closed
	Type: D, solenoid valve 3/2 way Direct-acting Normally opened
	Type: T, solenoid valve 3/2 way Direct-acting Flow direction optional

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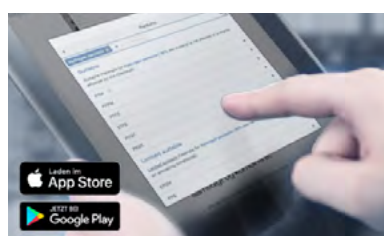


3. Approvals

ATEX and IECEx approval for coils with fixed cable outlet	
ATEX: EPS 18 ATEX 1232 X II 2G Ex mb IIC T4 Gb II 2D Ex mb IIIC T130 °C Db	IECEX: IECEX EPS 18.0110X Ex mb IIC T4 Gb Ex mb IIIC T130 °C Db
Explosion-proof approvals	
ATEX: PTB 01 ATEX 2101 0102 II 2G Ex i IIC T6 Gb II 2D Ex i IIIC T85 °C Db	IECEX: PTB IECEX12,0040 Ex ia IIC T6 Gb Ex ia IIC T80 °C Db

4. Materials

4.1. Chemical Resistance Chart – Bürkert resistApp



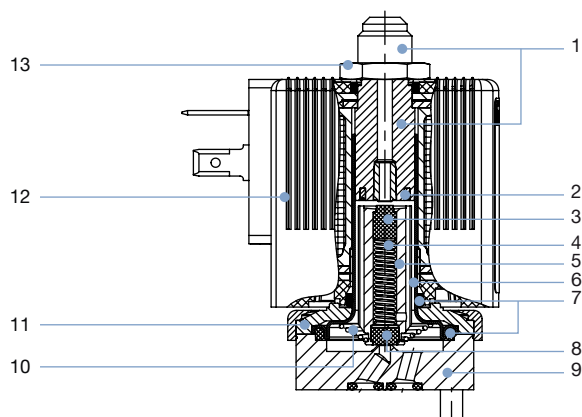
Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start Chemical Resistance Check](#)

4.2. Material specifications

Standard version



No.	Element	Material
1	Stopper	Stainless steel 1.4105
2	Shading ring	Cu (brass version) Ag (stainless steel version)
3	Plunger seal	FKM
4	Spring	Stainless steel 1.4310
5	Magnetic core	Stainless steel 1.4105
6	Armature guide tube	Stainless steel 1.4303
7	O-rings	FKM
8	Plunger seal	FKM
9	Valve body	Brass Stainless steel 1.4305 (G 1/8) Stainless steel 1.4401 (G 1/4)
10	Spring	Stainless steel 1.4310
11	Sub-base	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4301 (stainless steel version)
12	Coil	PA (Polyamide) Epoxy (High temperature version)
13	Locknut	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4305 PTFE coated (stainless steel version)

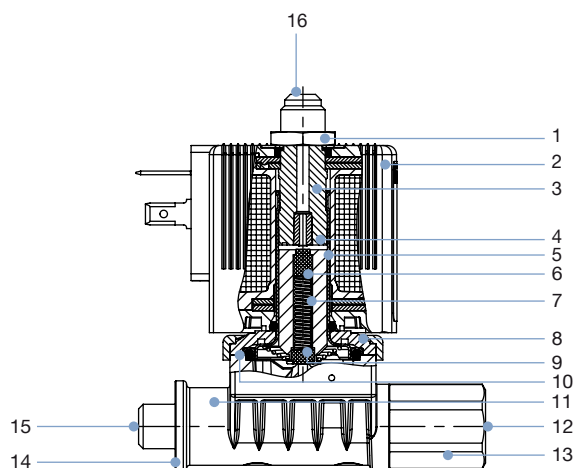
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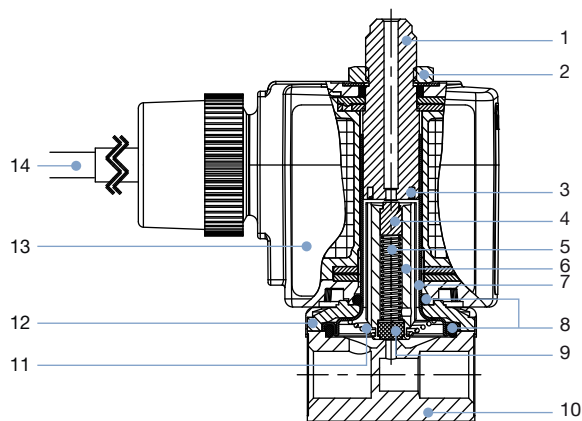


Banjo version



No.	Element	Material
1	Locknut	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4305 PTFE coated (stainless steel version)
2	Coil	PA (Polyamide) Epoxy (High temperature version)
3	Stopper	Stainless steel 1.4105
4	Shading ring	Cu (brass version) Ag (stainless steel version)
5	Armature guide tube	Stainless steel 1.4303
6	Magnetic core	Stainless steel 1.4105
7	Spring	Stainless steel 1.4310
8	Sub-base	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4301 (stainless steel version)
9	Plunger seal	FKM
10	O-rings	FKM
11	Valve body	PPS
12	Pressure connection P	-
13	Screw	Brass / Stainless steel 1.4301
14	O-rings	NBR
15	Pressure connection A	-
16	R connection	-

ATEX/IECEx m cable version



No.	Element	Material
1	Stopper	Stainless steel 1.4105
2	Locknut	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4305 PTFE coated (stainless steel version)
3	Shading ring	Cu (brass version) Ag (stainless steel version)
4	Plunger seal	FKM
5	Spring	Stainless steel 1.4310
6	Magnetic core	Stainless steel 1.4105
7	Armature guide tube	Stainless steel 1.4303
8	O-rings	FKM
9	Plunger seal	FKM
10	Valve body	Brass Stainless steel 1.4305 (G 1/8) Stainless steel 1.4401 (G 1/4)
11	Spring	Stainless steel 1.4310
12	Sub-base	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4301 (stainless steel version)
13	Coil	Epoxy
14	Cable	Polyolefin Copolymer, electron beam cross-linked

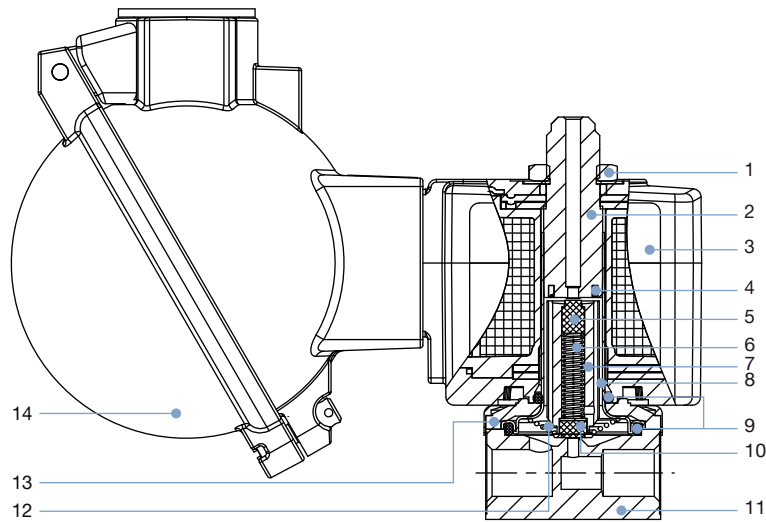
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ATEX/IECEx m junction box version



No.	Element	Material
1	Locknut	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4305 PTFE coated (stainless steel version)
2	Stopper	Stainless steel 1.4105
3	Coil	Epoxy
4	Shading ring	Cu (brass version) Ag (stainless steel version)
5	Plunger seal	FKM
6	Spring	Stainless steel 1.4310
7	Magnetic core	Stainless steel 1.4105
8	Armature guide tube	Stainless steel 1.4303
9	O-rings	FKM
10	Plunger seal	FKM
11	Valve body	Brass Stainless steel 1.4305 (G 1/8) Stainless steel 1.4401 (G 1/4)
12	Spring	Stainless steel 1.4310
13	Sub-base	Steel, surface finish thick-film passivated (brass version) Stainless steel 1.4301 (stainless steel version)
14	Junction box	Aluminium

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